Reading Quiz §2

1. [5] True/False: If the statement is *always* true, give a *brief* explanation of why it is (not a formal proof!). If the statement is false, give a counterexample. Let G be a group written mulitplicatively and let a, b, and c be elements of G

   (a) There may be more than one identity.

   (b) If $ba = ca$ then $b = c$.

   (c) $(ab)^2 = a^2b^2$

   (d) $(a^2b)cb^{-1} = a^2(bc)b^{-1}$

   (e) Nonabelian groups played a role in quantum theory.